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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/918,293	07/30/2001	Elisabeth Smela	S-80,400	9877

7590 10/28/2002
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EXAMINER

DOUGHERTY, THOMAS M

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 10/28/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/918,293

Applicant(s)

SMELA ET AL.

Examiner

Thomas M. Dougherty

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2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07/30/02 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1 and 3 have been considered but are moot in view of the new ground(s) of rejection. This is not a final rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1 and 3 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Varaprasad et al. (US 6,245,262). Varaprasad shows (fig. 1) an actuator consisting of a conjugated polymeric material (6), whereby said material expands when an electrical voltage is applied between two locations thereof (between electrodes 4) and contracts when the electrical voltage is reduced. Said conjugated polymeric material comprises polyaniline (col. 27, ll. 52-55). A method of actuation comprising the step of directly electrically stimulating a conjugated polymeric material (6) at two locations (between electrodes 4) thereof. As noted said conjugated polymeric material (6) comprises polyaniline.

Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Jang (US 5,869,007). Jang notes (col. 3, ll. 10-19) an actuator consisting of a conjugated polymeric material, whereby said material expands when an electrical voltage is applied between two locations thereof (between electrodes) and contracts when the electrical voltage is reduced. Said conjugated polymeric material comprises polyaniline. A method of actuation comprising the step of directly electrically stimulating a conjugated polymeric material at two locations (between electrodes) thereof. As noted said conjugated polymeric material comprises polyaniline.

Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Takahashi et al. (US 5,177,330). Takahashi shows (fig. 2B) an actuator consisting of a conjugated polymeric material, whereby said material expands when an electrical voltage is applied between two locations thereof (between 11 and 14) and contracts when the electrical voltage is reduced. Said conjugated polymeric material comprises polyaniline (he teaches equivalence of materials at col. 4, ll. 53-59). A method of actuation comprising the step of directly electrically stimulating a conjugated polymeric material at two locations (between electrodes) thereof. As noted said conjugated polymeric material comprises polyaniline.

Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Brotz (US 6,161,382). Brotz shows (e.g. fig. 4) an actuator consisting of a conjugated polymeric material (20), whereby said material expands when an electrical voltage is applied between two locations thereof (between electrodes 18 and 22) and contracts when the electrical voltage is reduced. Said conjugated polymeric material

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comprises polyaniline (col. 4, ll. 11-13). A method of actuation comprising the step of directly electrically stimulating a conjugated polymeric material at two locations (between electrodes 18 and 22) thereof. As noted said conjugated polymeric material comprises polyaniline.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over any of Varaprasad et al. (US 6,245,262), Jang (US 5,869,007), Takahashi et al. (US 5,177,330) or Brotz (US 6,161,382). Given any of the inventions as noted above, none explicitly notes doping of the polyaniline. The applicants' note in their remarks however that such is common in the art. As such it would have been obvious to one having ordinary skill in the art to employ the commonly used doped polyaniline in any of their inventions.

Direct inquiry concerning this action to Examiner Dougherty at (703) 308-1628.

tmd
tmd

October 21, 2002

Thomas M. Dougherty

THOMAS M. DOUGHERTY
PRIMARY EXAMINER
GROUP 2100

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